

NASA Safety Center Technical Services Support 2 (NSCTSS2)
DRAFT Statement of Work for
Sources Sought Notice NNC16ZNA006L

1.0 Introduction

The NASA Safety Center (NSC) was founded in 2006 to establish a Technical Excellence initiative; increase and sustain discipline knowledge within the Safety and Mission Assurance (SMA) community; managing the Agency Mishap Reporting System; and develop an increased role and a more effective and efficient approach for conducting audits, mishap investigations and independent assessments. These initiatives were divided into 4 functional areas: Technical Excellence, Knowledge Management, Mishap Investigation Support, and Audits and Assessments. This contract will provide technical support to the NSC.

The NASA Technical Excellence Office (TEO) was created to develop additional capability and competency in the Safety and Mission Assurance engineering and technical workforce. This workforce supports the Office of Safety and Mission Assurance (OSMA) managing and executing Agency SMA activities. In 2009, the SMA Technical Excellence Program (STEP) was created by TEO to provide a comprehensive professional development system having four distinct levels and covering six primary SMA disciplines: System Safety, Reliability & Maintainability, Software Assurance, Quality Engineering, Operational Safety, and Aviation Safety, and the Cross-Discipline and SMA Leadership alternate curricula. STEP is designed to be a predominately web-based, professional development system that maximizes the utilization of the System for Administration Training and Education Resources for NASA (SATERN) Learning Management System (LMS).

The NASA Knowledge Management Systems Office (KMSO) provides the infrastructure and support necessary for effective knowledge collection, analysis, dissemination and management for the SMA community and the broader NASA community via knowledge management, systems development and hosting, information dissemination and enterprise architecture. KMSO provides the Information Technology (IT) infrastructure and support services to enable the other NSC functional areas.

The NASA Mishap Investigation Support Office (MISO) was created to: facilitate the mishap investigation process; provide mishap data management, quality assurance, analysis, trending, and risk assessment; and communicate mishap-related information to the Agency to ensure understanding and prevent recurrence. To those ends, MISO in concert with OSMA has developed and fielded tools, training, case studies, messages, videos, templates, guides and special studies for senior leadership.

The NASA Audits and Assessments Office (AAO) performs coordinated program, project, and institutional audits. Each NASA Center and Component Facility is audited at least once every three to four years, with follow-up audits scheduled as necessary. Requirement flow-down and SMA Engineering Design Audits and Assessments (REDAA), Quality Audit, Assessment and Review (QAAR) and Institutional/Facility/Operational Safety Audits (IFOSA) are conducted. AAO identifies best practices and Agency-wide systemic issues that can be shared to provide significant benefit to other NASA Centers.

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2.0 Scope

The Contractor shall provide all material, personnel and supervision to accomplish the requirements as outlined in this Statement of Work (SOW). The Contractor shall provide SMA and discipline training development and support, SATERN administration, information dissemination and outreach including SMA website content development, technical writing, graphic design, electronic newsletters, video production, and Agency-wide conference and event support, operational support of IT systems including infrastructure management, application development and maintenance, and application user support, knowledge management support, mishap investigation and program manager support, data analysis and trending support, and project management support.

Any activities described herein as “review,” “certify,” “ensure compliance,” “verify,” or “evaluate,” shall not be construed as implying that the Contractor has the authority to approve/disapprove Government policies, procedures, specifications, requirements or those of any of its Government contractors. Language contained in this SOW shall not be construed to mean that the Contractor has the authority to perform final acceptance or rejection on the Government’s behalf for any products or services. The Contractor’s functions involving evaluation, verification, certification, review, etc., shall require communication of findings to the appropriate NASA representative having final approval or acceptance authority.

The Contractor shall have the capability to manage and perform numerous and varied task orders and projects simultaneously for the NSC and its customers across the Agency and established partnerships.

3.0 Requirements

This SOW describes the requirements for the Contractor to provide technical services to the NSC. These services include both the performing of these functions and the independent assessment of these functions and may include special projects involving multiple disciplines and offices.

The Contractor shall perform the work as directed in NASA issued task orders. Personnel assigned to perform the tasks shall have the required training, certifications and experience required to fulfill the task. Task orders may be issued within and across the areas described below, and may include the following:

3.1 Training Course Development and Support

The Contractor shall provide a formal instructional development capability that is documented with an established past performance. The Contractor shall have the capability and subject matter expertise to provide and support training development, maintenance and/or acquisition activities in support of the NSC. The Contractor shall conduct web-based training, technology research and

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benchmarking.

3.1.1 SMA and Discipline Training and Support

The Contractor shall have the capability and subject matter expertise for the development, maintenance, and/or acquisition of courses primarily for Web-Based Training (WBT) for the Office of Safety and Mission Assurance (OSMA), the NSC and STEP. The Contractor shall have the capability and expertise in Mediasite (by Sonic Foundry) to develop WBT from current instructor-led courses. The Contractor shall have the capability and subject matter expertise as required for the development and delivery of courses in NASA policy and techniques related to mishap investigation including Root Cause Analysis, Human Factors Investigator, Mishap Board Chairperson, Mishap Preparedness Contingency Plan, and Interim Response Team. Additionally the Contractor shall have the capability and subject matter expertise as required for the development and delivery of OSHA 30 Construction and OSHA 30 General Industry instructor-led courses. The Contractor shall develop and deliver classroom teaching materials to NASA centers and off-site locations where and when required by NSC instructors. The Contractor shall have the capability and subject matter expertise for the development of practitioner and job-focused training in support of TEO primarily in the following disciplines: System Safety, Reliability and Maintainability, Quality Engineering, Software Assurance, Occupational Safety and Aviation Safety. The web based training courses and modules shall be SCORM, Section 508 compliant and fully functional on the SATERN LMS. An instructional system design (ISD) process and subject matter experts (SMEs) shall be utilized to design and develop courses and TEO discipline training to meet the objectives. Additionally, the full catalog of OSMA, NSC and STEP courses will need to be continually maintained on an annual basis. Make vs. Buy Capability, Cost Benefit Analyses for commercial off-the-shelf training capabilities, as well as negotiation of draft-licensing agreements to meet the needs of the government for commercially available courses shall be included.

The priority and quantity of training modules/courses to be developed annually will be strongly influenced by the available funding. Future topics may include interactive learning and web-based simulations. Instruction timeframe for high level planning purposes should be evenly distributed between two and three day training events.

3.1.2 Training Support

The Contractor shall have the capability to provide formal project management for the development of all SMA and discipline training including, but not limited to, training and course development and maintenance scheduling, tracking and budget information. The Contractor shall manage funding and administration for NSC memberships (e.g., International Association for Continuing Education and Training (IACET)) and training related customer service contracts (e.g., Mediasite (by Sonic Foundry), ClickSafety, and National Safety Council). Additionally the Contractor shall have the capability to provide administration support including, but not limited to, preparing qualification packages in Adobe Acrobat and tracking and assisting in the approval of pending requests for STEP.

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3.1.3 SATERN Administration

The Contractor shall have the capability and expertise to support the development and implementation of the NASA SMA catalog through SATERN. The Contractor shall provide a qualified SATERN Administration capability. SATERN specific responsibilities include generating SATERN reports, managing catalogs/course materials for the SMA Domain portion of SATERN (~430 courses), constructing complex queries to extract performance-oriented data for SMA and STEP-oriented metrics and performance analysis, continued integration of OSMA, NSC and STEP courses and curricula into SATERN and establishing appropriate links to these materials from SATERN and management and administration of individual learner accomplishments for STEP course completions and other STEP curriculum requirements.

SATERN is NASA's current LMS but may change within the timeframe of this contract. The Contractor shall have the capability and expertise to adapt current training course content and curricula as required for the new LMS

3.2 Information Dissemination and Outreach

The Contractor shall support the Information Dissemination and Outreach activities of the NSC including print, electronic and in-person channels.

3.2.1 SMA Website Content Development

The Contractor shall have the capability and expertise to develop original content for the NSC and OSMA websites and identify and maintain a topic schedule for articles/blog posts. The Contractor shall perform requirements definition, design of new content and system capability, and implement change control management processes in support of the websites content and functionality. The Contractor shall provide content management, meta-tagging, maintenance of all external Web links, quality assurance, and provide optimized search capabilities to support discovery of content. Compliance with all Federal/Agency/Center Web publishing standards and policies including Section 508 compliance is required. Alternative analysis on new Commercial Off-The-Shelf (COTS) products and technologies may be conducted in support of the websites, ensuring that its web-based technologies stay at the forefront of technology, delivering state-of-the-art information to the agency in an effective and efficient manner. Additionally the Contractor shall develop documents for the websites (e.g., Best Practices and OSMA Policy News), post routine reports, presentations, and documents (e.g., Mishap Warning Action Response (MWAR) reports, Baseline Performance Review (BPR) presentations, and organizational charts) to the websites, and create special study materials including videos for annual campaign and additional special topics. The Contractor shall draft and design website content and landing pages for both the NSC and OSMA websites. Review chain is managed according to process and final products to meet all NSC, OSMA, Associated Press (AP) and Government Printing Office (GPO) style standards, and products are disseminated according to schedule to the appropriate distribution channels. The Contractor shall capture, trend and report on metrics related to website visits, email opens and clicks, video plays and products utilized.

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3.2.2 Technical Writing and Graphics Design

The Contractor shall have the capability and expertise to provide technical and creative writing support to the NSC. Content creation and support for information dissemination activities include annual reports, newsletters, presentations (e.g., PowerPoint chart), brochures, handouts, multi-media campaigns, case studies, feature stories, and special studies promoting safety. Technical writing expertise is required in drafting and editing large documents in word processing software that include inserted photographs, graphic objects, tables and hierarchical format. The Contractor shall utilize SMEs as required to provide the technical and creative writing support to the NSC. The Contractor shall have the ability to quickly learn and grasp complex engineering and scientific concepts, jargon and references, write in a simple, concise manner to a deadline, and apply superb attention to detail and diligence to complete an exemplary product. Additional skills should include the ability to take statistical data and develop communications materials that explain how the information is relevant to the NASA SMA Community, an understanding of the issues facing the NASA SMA Community and the expertise to provide suggestions for approaches in order to provide relevant information that is helpful. Conformance with NSC and NASA design styles as well as NASA Communication Material Review requirements is required as well as an understanding and familiarity with government and industry style guides including AP and GPO style. The Contractor shall have the expertise and capability to prepare files for printing consistent with Glenn Research Center printing service standards, cognizant of budget constraints. The Contractor shall provide graphic design services supporting original content creation including info-graphics, posters, banners, signage, exhibits, awareness materials, graphics and animations optimized for the NSC website. Expertise in the creation of PowerPoint presentations is also desirable.

3.2.2.1 Reports

The Contractor shall have the capability and expertise to prepare and publish reports including, but not limited to, OSHA 300, Mishap Area Data Packages, Annual Mishap Report, AAO Annual Report, and NSC Year in Review. The Contractor shall provide technical editing and graphical layout, create PDF files of completed packages and reports, create Web files using the data and content provided and update the Web page for sharing the Web files and supporting content.

3.2.2.2 Electronic Newsletters

The Contractor shall have the capability and expertise to develop a customized html email to distribute newsletters to the SMA community. For SMA News this will require working with OSMA and the Information Dissemination Manager to draft an opening message from OSMA management and building the email with appropriate articles that were developed for the OSMA website including the monthly safety message. The monthly New @ the NSC product is aimed at NSC employees. Articles should be developed that will be of interest to NSC employees and image galleries of events will be created to showcase activities. The newsletter will also include new products and services offered by NSC and available through the website. The Contractor

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shall track open and click rates for each newsletter and provide the information to the Information Dissemination Manager and include in appropriate reviews. Additionally the Contractor shall develop processes for creating, reviewing and disseminating the newsletters.

3.2.2.3 Agency Monthly Safety Messages Support

The Contractor shall have the capability and expertise to support the planning and development of monthly Safety Messages which are presented to the NASA Administrator and senior staff, and System Failure Case Studies (SFCS). NASA guidelines for format and review process shall be followed to assure adequate peer and government review. Topics will cover a range of subjects and require input from subject matter experts qualified to ensure accuracy and quality. Support includes maintaining topic lists, researching, developing drafts, routing for review, editing, and preparing final copy.

3.2.2.4 NASA Mishap Investigation Report Technical Support

The Contractor shall have the capability and expertise to provide, upon request, a technical writer to the Investigating Authority (NASA mishap investigation board or team) for a NASA mishap or close call. Support for two investigations simultaneously may be requested. This service consists of formatting all the required investigation products into a draft report compliant with NASA Procedural Requirement (NPR) 8621.1 (series). The Contractor may be called upon to utilize the NASA Root Cause Analysis Tool (RCAT) in support of mishap investigations. Strong oral communication skills, the ability to travel to another NASA Center and support an investigation for 2-3 weeks, and expertise in the identification, handling and storage of Sensitive but Unclassified (SBU) and International Traffic in Arms Regulation (ITAR) information are critical to this task.

3.2.2.5 Audits and Assessments Office Support

The Contractor shall have the capability and expertise to review templates for Audit letters and briefings annually or as requested in support of AAO. The Contractor shall prepare Audit letters using the approved templates, and format and edit the final audit reports. Additionally the Contractor shall maintain a library of auditors' biographies and develop Audit Best Practices.

3.2.3 Video Production

The Contractor shall have the capability and expertise to create original videos and podcasts on topics of interest to the SMA community. The products should be informational as well as engaging that include a mix of relevant graphics and animation to best communicate the message to the intended audience. Support includes development of scripts, coordination of shoots, video recording, editing, production, and closed captioning in a cost effective manner. The Contractor shall have the capability and expertise in Mediasite (by Sonic Foundry) to operate related Government Furnished Equipment (GFE) to record live events to be streamed to the Agency via Webcast using GFE distance learning technology. Set coordination, sound, lighting and visuals are desired to produce professional-quality video. The Contractor shall format video and podcast output to be 508 compliant and compatible for future viewing from SATERN, the NSC and

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OSMA websites, and/or mobile devices. Additionally the Contractor shall maintain inventory of the NSC studio and camera equipment.

3.2.4 Agency-wide Conference and Event Support

The Contractor shall have the capability and expertise to plan and host Agency-wide conferences, annual meetings, training workshops, teleconference and videoconferences, and other knowledge sharing events at a government-provided or specified facility. The types of events include, but are not limited to AAO Operational Meeting, Safety and Health Learning Alliance (SHLA) webinars, SMA Discussion Forums, Guest Lectures, and Panel Discussions. Support includes developing agendas and schedules for concurrent sessions, providing event registration services, providing venue logistic support, preparing and distributing promotional materials (e.g., email, flyer), creating and maintaining websites content including registration sites, holding and recording events, coordinating both live events and webcasts (complete with post-event video production, participant surveys, and capturing event metrics), organizing all meeting-related activities for visiting groups (including team building and collaboration sessions structured prior to and after the primary daily sessions), editing of final presentation materials, and meeting minutes. The Contractor shall also have the capability and expertise to provide event coordination support for NASA SMA working groups' teleconferences, video-conferences, webinars, and face-to-face meetings. Support will vary based on each working group's requirements and may include the utilization of SMEs. Cost estimates for individual events will be developed based on the working group's requirements. Other factors that could impact an event's costs include: audience size, event length, number of days/hours, sponsor's reporting requirements, knowledge of/past experience with the venue and/or working group, and number of concurrent events needing support. Additionally, the Contractor shall support Safety Day events at the ten NASA Centers. The Contractor shall work with Centers in advance of safety day to identify opportunities for support and collaboration. The Contractor will determine appropriate campaign materials and coordinate the delivery of those materials as well as the delivery and return of the NSC exhibit booth with the Centers as well as coordinating networking and audio/visual details. Prior to safety day, the Contractor shall prepare Center-specific metrics package and recognition certificates for Center employees who supported the NSC.

3.3 Operational Support of NSC IT Systems

The NSC Information Technology (IT) Infrastructure is designed to support the OSMA/SMA and other communities. Currently, the NSC hosts 22 servers with 68 Virtual Machines (VM), plus several storage devices, SANs, firewalls, and switches. The physical servers are Windows-based and are currently at Windows OS 2008. VMware is used for virtualization of the VMs. This equipment provides the infrastructure for Production or live data, Demonstration (test), and Development environments located in the NASA Glenn Research Center data center, as well as the disaster recovery environment at NASA Plum Brook Station, to host COTS/ Government Off-The-Shelf (GOTS) and NSC-developed applications. The NSC currently hosts applications including, but not limited to, the NSC and OSMA websites, NSC Knowledge Now (NSCKN) collaboration tool, NASA Mishap Information System (NMIS) mishap recording system, Surveys, Audits, Assessments, and Reviews Information System (SAARIS) database, NSC Help

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Desk Ticket System, My STEP database, and SMA Learning Catalog, SMA mobile Learning Catalog, and NMIS mobile dashboard. The NSC also hosts applications developed within NASA in support of the SMA Community including the Flight Test Safety Database (FTSDB). The websites currently utilize Sitefinity Content Management System (CMS) and supports both public and private content accessible only within the NASA.gov domain. Other system, web and programming software includes but is not limited to Microsoft SQL Server 2005, PHP 5.2.12, Adobe Cold Fusion 9 Standard, Oracle, JAVA, FileMaker Pro Advanced 14, ASP.Net, AVG anti-virus, and ConCept Search Engine.

3.3.1 NSC Information Technology (IT) Infrastructure Management, Security Compliance, System, and Hosting Support

The Contractor shall have the capability and expertise to provide the planning, design and management of IT systems that integrate computer hardware, software and communications technologies supporting hosting environment services for NSC in accordance with federal and NASA requirements. Tasks include providing computing services, data storage service, service monitoring and management on GFE. These services shall be provided for all environments required for NSC operations including Production or live data, Demonstration (test), and Development environments located in the NASA Glenn Research Center data center, as well as the disaster recovery environment at NASA Plum Brook Station. The Contractor shall maintain surveillance and monitoring of the NSC IT systems on a 24-hour x 7 days a week basis, utilizing system tools to be alerted if issues arise. The Contractor shall perform routine maintenance and troubleshooting which includes but is not limited to ensure that all server services, applications, and backups are running; service packs, hot fixes, anti-virus definitions, and firmware versions are current; and storage space quotas are not exceeded. The Contractor shall produce and maintain NSC Infrastructure operation and maintenance documentation which include but are not limited to build procedures, system baselines, IP Address list, topology schematics, maintenance schedules, and notification lists. The Contractor shall ensure that both physical and IT security Compliance of the NSC IT infrastructure is maintained according to all Federal, Agency, and Center security guidelines, policies and schedules. The Contractor shall support the annual Federal Information Security Management Act (FISMA) Continuous Monitoring conducted by the Glenn Research Center's IT Security team. The Contractor shall produce and maintain FISMA documentation which includes but is not limited to Systems Security Plans, Contingency Plans, Secure Configuration Management Plans, Center for Internet Security (CIS) Benchmarks, and Plan of Action & Milestones (POA&M). The Contractor shall support scheduled Agency and Center security system and application scanning and vulnerability mitigation as well as periodic security assessments/audits. Tasks shall support maintaining license agreements with supporting COTS providers; creation and maintenance of COTS provider agreements; and evaluation and purchase of hardware and software to support the NSC infrastructure. New hardware or software purchases to support system development and improvement shall also be included. Tasks relating to trouble-shooting the application performance at NASA centers may also be written. The Contractor shall support NASA access control and e-Authentication requirements. The Contractor shall produce and maintain operations, maintenance, reporting and licensing documentation for the NSC Infrastructure.

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3.3.2 NSC Application Development and Maintenance

The Contractor shall have the capability and expertise to provide software application and database development for existing and future NSC software applications and support of Web Publishing processes and procedures. Applications may be custom-written web applications (typically using the .Net or ColdFusion framework); mobile application development (iOS and Android), customization of COTS/GOTS tools, or programming required to integrate content management systems (e.g. Sitefinity CMS) with NSC developed websites. Applications development products must meet applicable NASA policies as outlined in the NASA Software Engineering Requirements (NPR7150), and NASA Information Technology and Institutional Infrastructure Program and Project Management Requirements (NPR 7120.7). Policies include compliance with implementation of Homeland Security Presidential Directive (HSPD-12) to including eAuthentication and other applicable IT access and security controls. Developed applications and content must meet accessibility requirements in compliance with Section 508 Amendment to the Rehabilitation Act. The Contractor shall have the capability and expertise to provide software maintenance, 'bug fixes' and software development for additional functions (approved through the application Change Management process) for the existing NSC applications which include but are not limited to NSCKN collaboration tool, NMIS mishap recording system, SAARIS database, NSC Help Desk Ticket System, My STEP database, and SMA Learning Catalog, SMA mobile Learning Catalog, and the NMIS mobile dashboard. The Contractor shall have the capability and expertise to document changes, additions, and software development proposed to NSC applications and content. The Contractor shall support application Configuration Control Boards as required. The Contractor shall update documentation of the applications including, but not limited to, quarterly release notes, wiki content, tutorials, Quick Start Guides and other documentation as required. The Contractor shall provide training and support to the application users via desk-side, webinars, phone, and e-mail support, and additionally provide Tier 2 support for defects/bugs/issues or technical issues that are escalated by the NSC Help Desk.

NASA is currently planning to implement an Agency-wide collaboration tool no earlier than October 2017. NSCKN user data and customer based will be migrated when that Agency tool is operation. The Contractor shall have the capability and expertise to plan and implement this migration.

3.3.3 Operational Support for the NSC Applications and Users

The Contractor shall have the capability and expertise to staff the NSC Help Desk service. The vision for the NSC Help Desk is to provide customers a central point of contact for NSC products and services. The NSC Help Desk provides Tier 1 level support for NSC customer inquiries, service provisioning, account management (for e-authenticated applications) and general customer inquiries for NSC developed products and services using the NSC Help Ticket System developed in FileMaker Pro Advanced 14. The NSC Help Desk will escalate customer tickets (not resolved at the Tier 1 level) to the Tier 2 level (Application Owner or Application Owner representative) for resolution. The Tier 1 Help Desk will provide a 'closed-loop' for customers by coordinating with Tier 2 to provide customers with updated status, resolution, and closure of customer tickets escalated to the Tier 2 level. The NSC Help Desk provides support

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via (phone, e-mail and walk-up) for NSC developed and hosted applications, products and services including, but not limited to, NSCKN, NMIS, My STEP, SAARIS, SMA Learning Catalog, NMIS mobile dashboard, and the Adobe Connect collaboration tool service provided by Ames Research Center and used by the NSC and OSMA personnel (limited support). In addition, to the NSC applications, the Help Desk also provides handling of inquiries for other NSC products published on the NSC Web Site including, but not limited to, STEP, videos and events. The Contractor shall capture, trend and report on metrics related to Help Desk ticket escalation and resolution as well as customer satisfaction. The Contractor shall provide NSC Help Desk support from 8:00 am to 6:00 pm Eastern Time, Monday through Friday.

3.4 Knowledge Management Support

The Contractor shall have the capability and expertise to support the NSC Chief Knowledge Officer (CKO) to plan, develop and implement a knowledge management program to collect and share SMA expertise across the Agency. The Contractor shall support the CKO by identifying potential SMA topics for knowledge sharing events, conducting alternative analyses of knowledge management tools and practices, assist with the planning and implementation of Agency knowledge management initiatives. Additionally the Contractor shall utilize SMEs as required to support the CKO.

3.5 Mishap Investigation Support Office Safety Engineering Services Support

The Contractor shall have the capability and expertise to support the development of a systematic method for mishap investigation process timeliness and tracking, investigation, authorization, corrective action tracking, and risk report dissemination, and develop processes to enable these functions and align them with the larger NSC activities. The Contractor shall support the Mishap Investigation Status Report process by maintaining and updating existing databases, provide content and support to developing mishap posture data trends and analyses, including development of a hazard taxonomy, presentation material for senior agency officials, and development of annual mishap reports. The Contractor shall support the maintenance and update of the Headquarters Mishap website, tools and methods repository. The Contractor shall support the Agency mishap investigation status reports, safety messages, safety training and special studies process as required. Additionally the Contractor shall provide safety engineering and consultation with center and NASA Headquarters SMA personnel as requested and support requirements definition and identify possible solutions for a cross-section of web-accessible analysis tools and methodologies to facilitate investigation analysis, root cause determination, and report generation. The Contractor shall support product development by enhancing existing templates (e.g., Center and Program Mishap Preparedness and Contingency Plan templates, Mishap Investigation Board (MIB) Report templates, etc.).

3.6 OSMA Mishap Investigation Program Manager Support

The Contractor shall have the capability and expertise to provide administrative and logistical support for the OSMA Mishap Investigation Program Manager. The Contractor shall set up, facilitate, and record meetings/telecoms, draft minutes of meetings/telecoms, and coordinate with

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center Points of Contact (POCs) to collaborate on activities and agendas for meetings. The Contractor shall support the maintenance of the NSCKN work groups, track and monitor actions for the Agency Working Groups, and compile and manipulate data and information for metrics related to the Working Groups. Additionally the Contractor shall prepare presentations and develop and prepare reports as required.

3.7 Data Analysis and Trending

3.7.1 NASA Mishap Information System (NMIS) Support

The Contractor shall have the capability and expertise to screen newly entered safety incident data (mishaps and close calls) within a NASA database via the NMIS web-based application interface. The Contractor shall be familiar with all NMIS functionality. Experience with identification, handling and storage of SBU information is required. The Contractor shall screen NMIS data for compliance and inconsistencies per multiple criteria, identify data quality issues and support contact with NMIS POCs at each NASA Center to reconcile apparent data quality and quantity issues with the expertise to apply NASA Mishap Investigation policy as specified in NPR 8621.1B.

3.7.2 Analysis, Trending, and Special Studies

The Contractor shall have the capability and expertise to provide analysis, trending, and special studies. Expertise with NMIS, IBM Statistical Packages for Social Sciences (SPSS), Excel pivot table proficiency, Microsoft Word tables and PowerPoint expertise are necessary. Contractor personnel supporting data analysis shall be familiar with basic statistics and charting and be able to use statistical analysis software create basic MySQL scripts to query a database. The Contractor shall have the ability to calculate and graph statistical process control, maximum probable loss, and other applied statistics products as needed. The Contractor shall have the capability and expertise to learn a large taxonomy of terms similar to the Occupational Injury/Illness Classification System (OIICS) with definitions and code test data using the taxonomy. The Contractor shall have the ability to write reports without excessive need for correction, work within strict timelines, identify statistically significant findings and articulate them in a manner actionable to NASA leaders or safety professionals. The Contractor shall have the ability to develop practical recommendations for findings based on experience and broad knowledge of NASA operational, programmatic, and mission assurance processes, and have expertise in application of multiple taxonomies of defined terms to rapidly and reliably categorize text data.

3.8 Project Management and Support

The Contractor shall have the capability and expertise to provide project management, support and coordination including, but not limited to, meeting support, reporting to NASA, preparation of documentation relating to overall project coordination, maintenance of NSC and office integrated work plans, presentations relating to recommendations to NASA, system performance reporting, regular updates and documentation relating to application development, schedules and

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status reports as tasked. Technical consultation on implementation strategies and “best practice” implementation of software, hardware, knowledge management, and systems shall also be written.

4.0 NASA NSCTSS2 Task Management

The Contractor shall provide an automated database tool or tools for managing task orders, subtask orders and SOW. This system shall be production ready and user friendly at the beginning of the performance period. The Government will issue task orders by through the Contractor provided system. The Contractor shall respond within 10 calendar days with the technical approach, period of performance, appropriate cost information, and any other information required. The Government will evaluate the proposal for reasonableness.

5.0 BUSINESS MANAGEMENT AND ADMINISTRATION

The Contractor shall develop, implement and maintain those business management systems required for effective and efficient accomplishment of contract work. In general, business management and administrative functions described in this section will not be covered by specific Task Orders. Areas include the following:

5.1 Management

The Contractor shall institute and maintain an effective, efficient, and responsive management organization responsible for management and oversight of Contractor personnel, subcontractors, other contract resources, Government Furnished Software and Data, contract performance, deliverables, and costs as applicable. The Contractor’s manager for this contract shall have complete, full and singular authority to manage this effort.

The Contractor shall comply with the AS9100 standard for the quality management systems as deemed applicable by the Contractor to the performance of the contract, and shall establish processes and objectives for the management and fulfillment of issued task orders.

The Contractor shall promptly alert the NASA Contracting Officer’s Representative (COR) and the Contracting Officer (CO) of any issues that may adversely impact the timely and cost-effective delivery of quality products and services under this contract.

5.2 Management Reviews

The Contractor shall participate in the following types of meetings and reviews, as required:

5.2.1 Regular Meetings and Teleconferences

The Contractor shall support weekly meetings at the NSC and other regular meetings or teleconferences with or at the NSC, NASA Headquarters and Centers to plan and coordinate contract performance.

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5.2.2 Monthly Contract Review Meetings

Senior Contractor personnel shall support monthly contract review meetings to discuss contract performances, problems, corrective actions, accomplishments, and other details of contract management with the COR and NSC Director and Managers.

5.2.3 Semi-annual Contract Performance Review

The Contractor shall participate in a semi-annual contract performance review with the Government at the NSC as described in a clause to be determined in this contract.

6.0 PERFORMANCE SURVEILLANCE

The Contractor shall meet monthly, as well as on an as-needed basis, with the NASA COR and appropriate Government personnel from the NSC as required.

7.0 APPLICABLE AND REFERENCE DOCUMENTS

The documents listed in Appendix A include directives, standards, and specifications that define requirements that may be either flowed-down to, or directly cited on a contract. The documents listed in Appendix B include NSC products applicable to the fulfillment of the contract. As specified in the individual contracts, they define requirements to which the work must conform. The Contractor shall determine appropriate flow-down of these requirements to lower level suppliers, determine compliance of suppliers to these requirements, or comply with the requirements of these documents in performing insight/oversight of suppliers and sub-tier suppliers in accordance with the applicable task order. For purposes of determining flow-down of requirements, the current issue of the document applies; for purposes of determining compliance with contract requirements, the terms of the contract apply.

In the performance of task orders, the Contractor shall use documents such as NASA directives, NASA standards, and other applicable standards. Additional applicable documents will be listed on the individual task orders.

The following online resources provide access to NASA directives and standards that may be applicable to the performance of NASA-funded work and to the fulfillment of the NASA Safety Center Technical Services Support 2 SOW

- NASA Online Directives Information System (NODIS): <http://nodis3.gsfc.nasa.gov>
- NASA Technical Standards: <http://standards.nasa.gov/documents/nasa>

Specific policy and requirements applicable to the fulfillment of the NASA Safety Center Technical Services Support 2 SOW include the following:

NASA Safety Center Technical Services Support 2 (NSCTSS2)
DRAFT Statement of Work for
Sources Sought Notice NNC16ZNA006L

APPENDIX A

- 29 CFR 1904
- Section 508 of the Rehabilitation Act
- Federal Information Processing Standards (FIPS)
- National Institute of Standards and Technology (NIST) Special Publications (SPs) 800 Series
- Federal Information Security Management Act (FISMA) of 2002
- NASA Policy Directive 1000.0A, NASA Governance and Strategic Management Handbook
- NASA Policy Directive 1000.3D, The NASA Organization
- NASA Policy Directive 2521.1A, Communications and Material Review
- NASA Policy Directive 2800.1B, Managing Information Technology
- NASA Policy Directive 2810.1D, NASA Information Security Policy
- NASA Policy Directive 9501.1I, NASA Contractor Financial Management Reporting System
- NASA Policy Requirement 1600.1, NASA Security Program Procedural Requirements
- NASA Policy Requirement 2800.1B, Managing Information Technology
- NASA Policy Requirement 2810.1A, Security of Information Technology
- NASA Policy Requirements 7150.2A, NASA Software Engineering Requirements
- NASA Policy Requirement 8621.1B, NASA Procedural Requirements for Mishap and Close Call Reporting, Investigating, and Recordkeeping
- NASA Policy Requirement 8715.3C, NASA General Safety Program Requirements
- NASA Policy Requirement 9501.2D, NASA Contractor Financial Management Reporting
- NASA Technical Standard 8719.13, NASA Software Safety Standard
- NASA Technical Standard 8739.8, Software Assurance Standard

Specific documents applicable to the fulfillment of the NASA Safety Center Technical Services Support 2 SOW include the following:

APPENDIX B

- Guide to STEP – available on cd upon request
- System Failure Case Studies <http://nsc.nasa.gov/sfcs/>

NASA Safety Center Technical Services Support 2 (NSCTSS2)
DRAFT Statement of Work for
Sources Sought Notice NNC16ZNA006L

ACRONYMS

AAO	Audits and Assessments Office
AP	Associated Press
BPR	Baseline Performance Review
CIS	Center for Internet Security
CKO	Chief Knowledge Officer
CMS	Content Management System
CO	Contracting Officer
COR	Contracting Officer's Representative
COTS	Commercial Off-The-Shelf
FIPS	Federal Information Processing Standards
FISMA	Federal Information Security Management Act
FTSDB	Flight Test Safety Database
GFE	Government Furnished Equipment
GOTS	Government Off-The-Shelf
GPO	Government Printing Office
IACET	International Association for Continuing Education and Training
IFOSA	Institutional / Facility / Operational Safety Audits
ISD	Instructional System Design
IT	Information Technology
ITAR	International Traffic in Arms Regulation
KMSO	Knowledge Management Systems Office
LMS	Learning Management System
MIB	Mishap Investigation Board
MISO	Mishap Investigation Support Office
MWAR	Mishap Warning Action Response
NIST	National Institute of Standards and Technology
NMIS	NASA Mishap Information System
NPR	NASA Procedural Requirement
NSC	NASA Safety Center
NSCKN	NSC Knowledge Now
OIICS	Occupational Injury/Illness Classification System
OSMA	Office of Safety and Mission Assurance
POA&M	Plan of Action & Milestones
POC	Point of Contact
RCAT	Root Cause Analysis Tool

NASA Safety Center Technical Services Support 2 (NSCTSS2)
DRAFT Statement of Work for
Sources Sought Notice NNC16ZNA006L

REDAA	Requirement flow-down and SMA Engineering Design Audits and Assessments
QAAR	Quality Audit, Assessment and Review
SAARIS	Surveys, Audits, Assessments, and Reviews Information System
SATERN	System for Administration Training and Education Resources for MASA
SBU	Sensitive but Unclassified
SFCS	System Failure Case Study
SHLA	Safety and Health Learning Alliance
SMA	Safety and Mission Assurance
SME	Subject Matter Expert
SOW	Statement of Work
STEP	SMA Technical Excellence Program
TEO	Technical Excellence Office
VM	Virtual Machine
WBT	Web-Based Training